

# Accessing NOAA Daily Temperature and Precipitation Extremes Based on Combined/Threaded Station Records

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## The Issue

- What climatological records should be used as the basis for U.S. daily climate extremes that are reported by the media, NWS, and others?
- Current extreme records reporting are inconsistent, based on varying combinations of multiple observing sites.

## Digitized Data

- NOAA's Climate Database Modernization Program (CDMP) has keyed a large amount of pre-1948 data in the past 5 years – data that has not been consistently used before.

## ThreadEx Priorities

- Published Local Climatological Stations (~260; Mostly ASOS Sites)
  - Temperature
  - Precipitation

## Threading Process

- Starting Point: Current ASOS Site
- Consideration of Historical Precedent
  - 1.) NWS/WB
  - 2.) COOP
- Overlaps: Yield to the More Recent Site
- No Adjustments for Inhomogeneities
  - This data set is informational; NOT meant for research purposes!
- Station Threads Vetted by Partners:
  - Northeast Regional Climate Center (Developer)
  - NWS Field, State Climatologists, Others (Reviewers)

## ThreadEx Roll-Out

- Daily Threaded Data: Completed 3/2006
- Data Tables: **Available at:**  
**<http://threadex.rcc-acis.org/>**
- Data Tables Updates: Annually to Include:

- Immediate Past Year (e.g., 2006)
- Addition of Early Data (e.g., Keyed Forts Data)
- Adjustments to Threads

## Data Table Contents

- Daily Top Three Records and Years for:
  - Highest Maximum Temperature
  - Lowest Maximum Temperature
  - Highest Minimum Temperature
  - Lowest Minimum Temperature
  - Greatest Precipitation

## Future Plans

- Expanded Locations:
  - Principal COOP Network Sites
  - Key Locations for NWS and Partners
  - Stakeholder Feedback
- Expanded Elements:
  - Snowfall
  - Snow Depth
- Other Statistics (e.g., Consecutive Days, etc.) will be available through NOAA-Sponsored Data Query Tools (xmACIS, CDO, NOWData)

## Conclusion

ThreadEx provides...

- Maximized
- Consistent
- Routinely Updated
- Freely Available

Daily Climate Records for Principal Observing Stations in the United States

ThreadEx is for general public use, NOT for research (no homogeneity adjustments)



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